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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,334	02/22/2000	Toshikazu Ohshima	2355.11105	1732

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

MOSSER, ROBERT E

ART UNIT PAPER NUMBER

3714

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/510,334	Applicant(s) OHSHIMA, TOSHIKAZU	
	Examiner Robert Mosser	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,8-11,13,16,18 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,8-11,13,16,18 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to amendment entered under the RCE dated April 2nd 2004.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 2nd 2004 has been entered.

Claim Objections

Claim 3 is objected to because of the following informalities: Claim 3 is presently dependent on a cancelled claim. For the purpose of examination the dependency has been interpreted as to be directed towards claim 1 as presented. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 29 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The instant claim is directed towards a storage medium that stores a program of a method to instruct and apparatus. It is unclear given this language if the applicant intends to claim a method or apparatus. For the purposes of examination the claim is interpreted as intending to encompass a method.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 8-11, 18, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (5,638,300).

With regards to at least claims 1, 5, 18, and 29, Johnson teaches a golf swing analysis system including:

a first sensor (Fig 1,2 & Elm 6, 18) attached to the head of a user for detecting the "position" and "orientation" of said head (Col 3:44-48 & Col 3:64-4:6);

a second sensor attached to a second portion of the user separate and different from the first portion user for detecting the "position" and "orientation" of the second portion (See Figure 1 & 2 and note multiple uses of element 6 on multiple position on the user's body);

an estimating unit/step arranged to estimate a relative position of the second portion with respect to the position and orientation of the first portion in accordance with the results of detection by said first and second sensors (Col 4:1-6 & 4:39-44);

a generation unit/step arranged to generate action information on the basis of a transition of the estimated relative position (Col 7:9-18);

a determination unit/step arranged to determine a user instruction corresponding to the generated action information(Col 10:41-54); and

an image (message) generating unit/step arranged to generate an image on the basis of said user instruction (Col 10:54-55).

With regards to claim 3, the association of the second sensor being attached to the hand is interpreted as being satisfied by sensor 20 located at the handle of the club. As the handle of the club is grasped by the player during operational use in similar fashion in which the remaining sensors are affixed to the user during operation, the sensor is viewed as being implicitly attached to the hands.

With regards to claim 8, the "action information" as described by Johnson in Column 7 lines 9-27, contains the spatial position (understood to include orientation as presented above) information for each sensor and thus by definition must include the respective orientation information between multiple sensors.

With regards to claim 9, the inclusion of the moving direction and location of the second portion with respect to the first portion would necessarily be encompassed in the sequence of frames recorded as cited in the address of claim 8 and further supported in

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the description of purpose for the prescribed approximate frame rate starting on line 15 of column 7.

With regards to claim 10 as best understood, the process contained there in has been interpreted to refer to the analysis of the "transition" or movement of the sensor respective positions based on a discrete time frame and the association of instruction values with this analysis. As such the real time analysis model is provided for Johnson's analysis method as set forth in at least column 10, line 49 through line 55.

With regards to claim 11, the separation of the determined user instruction into a plurality of instruction operands by the determination unit is considered encompassed in Johnson's analysis set forth above (and through Col 10:15-12:23). In particular the separation of this analysis into discrete instructions maybe considered emphasized in column 10:10-19 with at least the separation of the analysis into warning messages.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (5,638,300) as applied to claim 1 above in further view of Cozza (US 5,655,223).

Johnson teaches all features of the invention disclosed above but is silent regard the use on sensors to determine the bend angle of a finger. In an electronic golf glove training device Cozza teaches the incorporation of sensors into a glove and used to train a user in the proper grip of a golf club (Abs & Fig 1-4). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the position sensors of Johnson in the glove of Cozza in order measure the player grip for later analysis.

Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (5,638,300) as applied to claim 1 above in further view of Brostedt et al (US 5,984,684).

While Johnson teaches all features of the invention disclosed above and the displaying on a display device (38), Johnson is silent regarding the use of a head-mounted display. In a related method and system for teaching physical skills Brostedt teaches the use of a head-mounted display (101). It would have been obvious to one of ordinary skill in the art at the time of invention to use the video glasses (head mounted display) of Brostedt et al in the place of the monitor of Johnson to eliminate the necessity for the student to change his field of vision to view a video monitor (Col 2:49-52).

Response to Arguments

Applicant's arguments with respect to claims 1, 3, 5, 8-11, 18, and 29 have been considered but are moot in view of the new ground(s) of rejection.

With respect to argument s fixed around the determination of a relative position of a second portion with respect to a first portion, the newly presented Johnson reference relies on a coordinate system. As this coordinate system is reliant on a *fixed reference point* the relative position of each portion is measured relative to each other.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Curchod US 5,826,578 teaches a motion measurement apparatus..

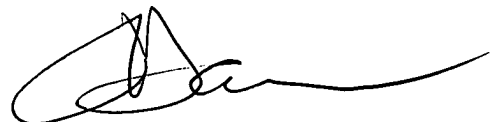
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Mosser whose telephone number is (703)-305-4253. The examiner can normally be reached on 8:30-4:30 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H Banks can be reached on 703-308-1745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

REM



JESSICA HARRISON
PRIMARY EXAMINER